

Appl. No. 09/813,351

REMARKS

The final Office Action was issued on pending claims 1-27. Claim 24 stands allowed, claim 16 was objected to, and claims 1-15, 17-23, and 25-27 were rejected. In this response, claims 1, 17, 21, and 25-27 have been amended, claim 28 has been added, and no claims have been cancelled. Thus, claims 1-28 are pending in the application.

Allowable Claims

In Office Action paragraph 10, claim 24 was allowed. In Office Action paragraph 11, claim 16 was objected to as being dependent upon a rejected base claim, but noted as being allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants thank the Examiner for this notice of allowable claims.

Drawings

In Office Action paragraph 1, the drawings were objected to under 37 C.F.R. § 1.83(a) with reference to the end panel being in a position folded on top of one of the plurality of panels as recited in claims 5 and 19:

Applicants respectfully submit that the Specification and Drawings sufficiently describe and show the features of Applicants' claimed invention, as claimed in claims 5 and 19. Please refer to Figs. 1, 8, and 9 and the Specification at page 11, lines 5-18. The flexible container is shown and described as being in a folded position for filling the container with liquid.

Claims 5 and 19 call for the end panel to be in a position folded on top of one of the plurality of panels when the flexible container is in a folded position. The Specification and Drawings describe and show greater detail than the claim limitations of claims 5 and 19. Referring to Figs. 8 and 9, the container 10 is positioned horizontally with the bottom panel 14

Appl. No. 09/813,351

against the base of the box. The container 10 is flattened wherein the first and second gusseted side panels 16, 18 can be folded inward to the container 10 although they are shown extended in Fig. 8. See the Specification at page 11, lines 8-11. The gusseted end panels 20, 22 are folded over on top of the panel 12 when the container is in a supporting box. See the Specification at page 11, lines 11-12. In this configuration, the container is easily filled. As shown in Fig. 9, as the container 10 is filled, the gusseted side panels 16, 18 begin unfolding. See the Specification at page 11, lines 13-14. The gusseted end panels 20, 22 also unfold from being on top of the top panel 12 as the container 10 is filled.

Accordingly, Applicants respectfully submit that the Specification and Drawings sufficiently describe and show the features of claims 5 and 19. Thus, Applicants respectfully submit that the objection to the drawings has been overcome.

Claim Rejections

In Office Action paragraphs 2-9, various claim rejections were entered. Claims 1, 2, 6-11, and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cook et al. (3,119,548). Claims 1-4, 6-9, 14, 17, 18, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Calhoun (3,319,684). Claims 1, 2, 6-10, 13, 14, 17, and 25-27 were rejected under 35 U.S.C. § 102(b) as being anticipated by LaFleur (5,358,335). Claims 21-23 and 27 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sasaki, et al. (5,788,121). Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over LaFleur '335. Claims 1-10, 12, 14, 15, 17-20, 25, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki, et al. '121 in view of Olson (6,032,818). Applicants respectfully disagree.

Applicants' invention pertains to large volume flexible containers for holding extremely large amounts of fluid. For example, the flexible container shown in Fig. 1 holds approximately

Appl. No. 09/813,351

200 liters of fluid. The flexible container shown in Fig. 2 holds approximately 500 liters of fluid. The flexible container shown in Fig. 3 holds approximately 1,500 liters of fluid. See the Specification at page 8, lines 7-12.

Problems are encountered with existing flexible containers of such extremely large volume. The extremely large volume of liquid held by the containers exerts a great hydraulic force against the seams of the container. When such large volume containers are filled with water, the containers can weigh thousands of pounds, for example. The intense forces associated with such large liquid volumes can cause the container seams to fail or rupture, therefore causing leaks in the container. See the Specification, page 1, line 22-page 2, line 2.

One aspect of Applicants' invention is the large volume flexible container has a unique configuration that reduces stress on the seams caused by hydraulic forces generated from the large volume of fluid held in the container. See the Specification at page 8, lines 13-14. One aspect of the unique configuration of Applicants' large volume flexible container invention is that the gusseted end panels extend outward rather than forming flat ends. See the Specification at page 10, line 17-page 11, line 2. The outward extended end panels provide for reduced stresses on the seams of the large volume flexible container when the container is filled with a large volume of liquid. See the Specification at page 11, lines 2-4. Accordingly, Applicants' invention provides advantages for large volume flexible containers having a volume of at least about 200 liters. For example, Applicants' invention can reduce stresses on the container when the containers are filled with liquid and weighing thousands of pounds.

Turning to the Office Action, the references relied on in the rejections do not address stress problems with large volume flexible containers. Furthermore, none of the references disclose or suggest Applicants' claimed large volume flexible containers having an interior

Appl. No. 09/813,351

volume of at least about 200 liters. Cook et al. '548 pertains to plastic bags having open ends and does not pertain to large volume flexible containers of at least 200 liters. Calhoun '684 pertains to a collapsible container which is suitable for medical use to administer liquids to a patient or collect drainage liquids from a patient. Clearly, Calhoun '648 does not disclose or suggest a liquid container of at least 200 liters to administer liquids to or drain liquids from a patient. LaFleur '335 pertains to a bulk bag with a conical top. LaFleur does not show or describe a plurality of panels and an end panel configured and arranged to define an interior volume of a flexible container of at least about 200 liters. Sasaki et al. '121 pertains to a bag for a bag-in-box. Sasaki et al. '121 shows and describes a significantly smaller bag having a capacity of up to only about 20 or 25 liters. Accordingly, those references do not show or describe large volume flexible containers having a size of at least 200 liters. Furthermore, Applicants respectfully submit that it would not be obvious to modify any of those containers to form a large volume flexible container of the significantly greater size as claimed by Applicant.

Olson '818 pertains to a liner for holding fluid. Olson '818 does not disclose or suggest, nor does the Office Action assert that Olson '818 discloses or suggests, a container having an outward extending end panel as claimed by Applicants.

Independent claims 1, 17, 25, 26, and 27 have been amended to clarify that the invention pertains to a large volume flexible container. Specifically, the plurality of panels and the end panel are configured and arranged to define an interior volume of the flexible container of at least about 200 liters. Applicants' invention as claimed as a whole is simply not disclosed or suggested in the cited references, alone or together.

As to claim 21, claim 21 calls for an angle of the first panel to be in the range from about 135.01° to about 138°. Referring to an example of Applicant's invention shown in Fig. 5, a first

Appl. No. 09/813,351

panel 12 has a central segment 24 adjacent an end segment 26. The central segment 24 has a longitudinal edge 34 and the end segment 26 has a tapered edge 36 extending from the longitudinal edge 34. An angle A is defined between the longitudinal edge 34 and the tapered edge 36. The angle A is in the range from about 135.01° to about 138° . See the specification at page 10, line 17-page 11, line 4.

Sasaki et al. '121 simply does not disclose or suggest the range of Applicants' angle as claimed in claim 21. Referring to Fig. 1 of Sasaki et al. '121, Sasaki et al. '121 shows an angle m1 and an angle n1 which form a triangular fin portion 11 having a shape close to a right-angled isosceles triangle. Sasaki et al. '121 shows similar angles m2 and n2 in Fig. 1 for another triangular fin portion. See Sasaki et al. '121, column 14, lines 26-48. As such, Sasaki et al. '121 describes different angles than the angle claimed by Applicants.

Thus, Applicants submit that all of the § 102 and § 103 rejections have been overcome and all the claims are allowable.

CONCLUSION

For the foregoing reasons, Applicants submit that the patent application is in condition for allowance and request a Notice of Allowance be issued.

Appl. No. 09/813,351

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

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Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

Michael S. Leonard
Reg. No. 37,557
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 807-4270

Appl. No. 09/813,351

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claims 1, 17, 21, and 25-27 to read as follows:

1. (Twice Amended) A flexible container comprising:

a plurality of panels joined together to form a sleeve, the panels each having an end edge that cooperate to define an imaginary plane at one end of the sleeve; and

an end panel connected to the panels at the one end of the sleeve, the end panel having at least one portion extending outwardly from the sleeve beyond the imaginary plane when the end panel is in an unfolded position;

wherein the plurality of panels and the end panel are configured and arranged to define an interior volume of the flexible container of at least about 200 liters.

17. (Twice Amended) A flexible container comprising:

a plurality of panels joined together to form a sleeve, the panels each having an end edge that cooperate to define an imaginary plane at one end of the sleeve; and

an end panel connected to the panels at the one end of the sleeve, the end panel having a plurality of converging surfaces, the surfaces having at least one portion extending outwardly from the sleeve beyond the imaginary plane when the end panel is in an unfolded position;

wherein the plurality of panels and the end panel are configured and arranged to define an interior volume of the flexible container of at least about 200 liters.

Appl No. 09/813,351

21. (Amended) A large volume flexible container capable of containing a fluid to be maintained under sterile conditions comprising:

a first panel, a second panel, a third panel, and a fourth panel connected together to form a generally cubic container structure,

the first panel having a central segment adjacent an end segment, the central segment having a longitudinal edge and the end segment having a tapered edge extending from the longitudinal edge, an angle being defined between the longitudinal edge and the tapered edge, the angle being in the range from about 135.01° to about 138°.

25. (Amended) A flexible container comprising:

a plurality of panels joined together to form a sleeve, the panels each having an end edge that cooperate to define an imaginary plane at one end of the sleeve; and

an end panel connected to the panels at the one end of the sleeve, the end panel having at least one portion extending beyond the imaginary plane, the end panel comprising a plurality of connecting members which converge to a polygon;

wherein the plurality of panels and the end panel define an interior volume of the flexible container to be at least about 200 liters.

26. (Amended) A flexible container comprising:

a plurality of panels joined together to form a sleeve, the panels each having an end edge that cooperate to define an imaginary plane at one end of the sleeve; and

an end panel connected to the panels at the one end of the sleeve, the end panel having at least one portion extending beyond the imaginary plane, the end panel comprising a plurality of connecting members;

Appl. No. 09/813,351

wherein the plurality of panels and the end panel define an interior volume of the flexible container to be at least about 200 liters; and

wherein one of the panels has a port.

27. (Amended) A flexible container, comprising:

a plurality of panels connected together and defining an interior space of at least about 200 liters, at least one of the panels having a port with access to the interior space, the flexible container having a collapsed position folded on itself and an expanded, unfolded position, at least one of the panels having a plurality of gusset end segments which extend outwardly away from the interior space.

Please add claim 28 as follows.

28. The container of claim 21 wherein the first, second, third, and fourth panels define an interior volume of the container structure of at least about 200 liters.